

27. (Previously added) The method of claim 26, wherein the reducing agent includes a borohydride.

28. (Previously added) The method of claim 24, wherein the step of treating the substrate with a reducing agent includes contacting at least a portion of either the active or first surface of the substrate with an aqueous solution containing between 0.1 and 1% sodium borohydride by volume.

29. (Previously added) The method of claim 28, wherein the aqueous solution contains between 0.2% and 0.3% sodium borohydride by volume.

30. (Canceled) The method of claim 24, wherein said autofluorescence is reduced by at least an order of magnitude RFU.

31. (Previously added) The method of claim 24, wherein said substrate is treated for at least 10 minutes with said reducing agent.

32. (Previously added) The method of claim 24, further comprising a step of scanning the substrate.

33. (Currently amended) The method of claim 32, wherein said scanning step includes scanning the substrate for a fluorescent label.

34. (Previously added) The method of claim 24, wherein said substrate is made from a material selected from the group consisting of inorganic materials, glass, ceramic materials, metals, and semiconductor materials.

35. (Previously added) The method of claim 24, wherein said substrate is made from a material selected from the group consisting of organic materials, polyesters, polybutylene terephthalate, polyvinylchloride, polyvinylidene fluoride, polytetrafluoroethylene,

polycarbonate, polyamide, poly(meth)acrylate, polystyrene, polyethylene or ethylene/vinyl acetate copolymer.

36. (Previously added) The method of claim 24, wherein said biological or synthetic molecule includes at least one of the following species: ribonucleic acids (RNA), deoxyribonucleic acids (DNA), synthetic oligonucleotides, antibodies, proteins, peptides, lectins, modified polysaccharides, cells, synthetic composite macromolecules, functionalized nanostructures, synthetic polymers, modified/blocked nucleotides/nucleosides, modified/blocked amino acids, fluorophores, chromophores, ligands, chelates, and haptens.

37. (Previously added) A substrate having an array of biomolecules non-covalently attached thereto produced by the method of claim 24.

38. (Previously added) The substrate of claim 24, wherein the biomolecules are nucleic acids or oligonucleotides.

39. (Currently amended) The substrate of claim 24, wherein the substrate ~~is~~ contains an array of nucleic acids or oligonucleotides.